

**DECISION RECORD
AND
FINDING OF NO SIGNIFICANT IMPACT
ON THE
POWDER RIVER GAS, LLC.
COAL CREEK FEDERAL PROJECT
PLAN OF DEVELOPMENT
MT-020-2004-58**

SUMMARY OF THE PROPOSAL

Powder River Gas, LLC, (PRG) proposes to drill and test for coal bed natural gas (CBNG) potential in its Coal Creek project area. The project area encompasses approximately 760 acres, located in Sections 6 and 7, T. 8 S., R. 41 E., in Big Horn County, southeastern Montana. The proposed action requiring a decision by BLM includes the drilling, completing and testing of 8 exploratory federal wells at 4 well sites on private surface. Powder River Gas also proposes to treat the CBNG produced water, using an ion exchange facility, and discharging the treated water into the Tongue River under an approved State MPDES permit. All testing processes will last no longer than six months following completion of each well. Following testing operations, the wells would either be plugged according to federal or state requirements if no commercial quantities of gas are discovered or be shut in until production facilities are approved and installed.

DECISION

Based upon the analysis of potential environmental impacts described in the *November, 2004 Powder River Gas, LLC.-Coal Creek Project Plan of Development Environmental Assessment* (EA) (Attachment 1), it is my decision to select Alternative C from the EA and approve the Plan of Development (POD) dated August 18, 2003, submitted by Powder River Gas, LLC, as modified by conditions of approval.

Approved project components include:

- Construction, drilling, testing and reclamation of up to 8 federal coal bed natural gas wells on 4 locations. Testing would not exceed six (6) months per well or 1260 MCF of produced gas per well, whichever occurs first.
- Use of an off-lease private water treatment facility and holding pond, Montana Department of Environmental Quality approved surface discharge and existing Class 1 injection wells for disposal of produced water from federal wells.
- Access via 8.25 miles of improved and unimproved roads (0.5 upgraded to an all-weather access) is authorized to allow the operator access to its individual leases as described in the Proposed Action.
- Approximately 2.4 miles of gas, water and electrical lines will be buried in a common corridor (15 foot wide) from the 8 federal wells to the treatment facility.

Approval of the Coal Creek POD which includes a Water Management Plan, a Wildlife Monitoring and Protection Plan, and a Reclamation Plan, is subject to the operator implementing and complying with all the Conditions of Approval (COA) listed in Attachment 2. These conditions of approval include additional mitigating measures listed in Alternative C of the EA and contain all practicable means to avoid or minimize environmental harm. These conditions of approval are either a result of the impact analysis or adopted from the MT Statewide FEIS, 2003.

This decision is effective immediately. Actions may begin immediately in accordance with any restrictions or constraints imposed by lease stipulations, permit conditions of approval or surface owner agreements.

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

I have reviewed environmental assessment MT-020-2004-58, including the explanation and resolution of any potentially significant environmental effects. The BLM Preferred Alternative, *Alternative C-Powder River Gas Plan of Development with Additional Mitigation*, would not have any significant effects on the human environment and preparation of an environmental impact statement (EIS) is not required. It is my decision to implement the BLM Preferred Alternative with the mitigation measures described herein.

MANAGEMENT CONSIDERATIONS/RATIONALE FOR THE DECISION

My FONSI determination on the Coal Creek POD is based upon a number of factors, including careful consideration of the relevant issues listed in the EA.

Public Involvement

The Miles City Field Office completed the Montana Statewide Final Oil and EIS and Amendment of the Powder River and Billings RMPs on April 30, 2003 (MT EIS). One result of this effort is an extensive database of public input on CBNG. Issues, comments and concerns obtained from the public throughout the EIS scoping, comment and protest period were all used to review Powder River Gas, LLC – Coal Creek POD and prepare the EA.

An opportunity for public involvement on the Powder River Gas proposal was provided via the Application for Permit to Drill (APD) posting period (43CFR 3162.3-1(g)). This 30 day public comment period started on August 18, 2003. No comments were received from the public during the 30-day posting period.

Finally, a public review and comment period was provided for the Powder River Gas, LLC – Coal Creek POD Environmental Assessment and associated Montana Department of Environmental Quality (MDEQ) Draft Montana Pollution Discharge Elimination System (MPDES) permit. Public comment was solicited by the BLM Miles City Field Office, the MDEQ and the Montana Board of Oil and Gas Conservation (MBOGC). The comment period started on July 19, 2004 and ended on August 24, 2004, and was closed following a MDEQ public hearing on August 24th, for the draft MPDES permit. The BLM was the agency primarily responsible for compiling public review and comments to the Coal Creek POD EA. Twenty three individual agencies, interest groups, companies, tribes and citizens provided comment to the EA. These comments and agency responses can be found in Appendix E of the Powder River Gas, LLC – Coal Creek POD EA. The public issues, comments and concerns were utilized in the environmental analysis and subsequent FONSI/Decision Record.

Consistency with Land Use Plan

Alternative C, the BLM's Preferred Alternative, is in conformance with the Powder River RMP, as amended, and this decision is in conformance with the overall planning direction for the area. The Powder River RMP, as amended, required that "standard" and "special" protective stipulations and mitigation measures in the form of conditions of approval be applied to prevent undue adverse impacts to other resource values. Standard and special protective measures were identified and incorporated into the BLM Preferred Alternative to reduce or eliminate impacts.

Surface Water Quality

BLM's approval of the Powder River Gas – Coal Creek POD will not significantly impact water quality. The discharge of produced and treated CBNG water will be conducted under an approved MDEQ MPDES permit that establishes the necessary discharge limits to protect water quality and beneficial uses. Using the predicted sodium adsorption ratio (SAR) as the primary water quality indicator, the analysis in EA Table 4.3.4-1 shows that under a range of flow conditions, from the high mean monthly flow to the 7Q10, the water quality in the Tongue River will meet the Montana water quality requirements for an SAR value of less than 4.5 (EA Table 4.3.4-2).

At the Birney Day School monitoring station, just upstream of the Northern Cheyenne Reservation, even during the 7Q10 flow levels, water quality is predicted to not exceed the Northern Cheyenne water quality standard of 2.0 for SAR (EA Table 4.3.4-2 showing a predicted SAR value of 1.93 at the 7Q10 flow).

Based on the above results, I conclude that impacts to surface water quality will not be significant from the selected alternative.

Drawdown of Groundwater

The testing for federal gas reserves under the selected alternative will not result in significant impacts from the drawdown of groundwater. Well testing operations will not remove a significant amount of groundwater. As discussed in the EA under Section 4.3.4, the number of affected water sources (wells and springs) in the potential drawdown zone under the BLM-approved POD in Alternative C will not increase when compared to Alternative A.

While some water sources could experience reduced yields, the operator is required by the State and the BLM to offer mitigation agreements to the owners of any spring or well adversely impacted. These agreements will apply to the owners of these wells and springs whether the impact to their use is due to decreased yield, the production of methane (methane migration), or a change in water quality. The replacement of water required by these agreements is anticipated to take the form of reconfiguring existing wells, re-drilling wells or drilling new wells. These actions will be effective in replacing water sources and preventing significant impacts since the drawdown will likely be confined to the coal seam aquifers, and any lost water sources will be replaced with a permanent source before termination of the agreement. Impacts are not expected after cessation of CBNG testing since the aquifer will be in the recovery phase with rising groundwater levels. The agreements are included as part of the approved POD.

Based on the above results, I conclude that impacts to groundwater will not be significant from the selected alternative.

Produced Water Treatment

Powder River Gas LLC – Coal Creek POD will take produced water from the CBNG wells to an ion exchange loop, treatment facility, treat the water and discharge it directly into the Tongue River. The treatment facility generates a one percent waste brine, which is considered a Class 1 Hazardous Industrial Waste. This waste will be disposed of in an approved Class 1 disposal well. Powder River Gas has identified three wells, located in Wyoming, to take this waste product. I have included an additional condition of approval requiring the operator to obtain all required permits for waste transport and disposal before any water production from Federal wells can occur.

Following the treatment process, water is directly discharged into the Tongue River. Prior to discharge, the operator is responsible for obtaining a MDEQ MPDES permit. This permit must be “Effective” prior to any discharge. Thus, I have included a condition of approval prohibiting discharge of any produced water from Federal wells until the MPDES permit has become “Effective”.

Powder River Gas will construct an impoundment, with two chambers, to receive produced water prior to entering the treatment facility and receive water after it has been treated. This impoundment’s construction will include a 20 mil polyethylene liner. This liner is expected to prevent leakage and associated impacts to groundwater resources or adjacent soils and vegetation. I have included additional monitoring requirements, including the installation of a monitoring well, in the selected alternative in order to verify the performance of the impoundment liner and provide for a means to identify the need for remedial action (EA Section 4.3.4). The operator’s plan for this impoundment, in conjunction with the BLM-required monitoring to assure liner performance, will prevent significant impacts.

Approval of the impoundment is the responsibility of the MBOGC. I have included an additional condition of approval requiring the operator to have an effective MBOGC Earthen Pit Permit before any water production from Federal wells can occur.

Based on the above results and conditions of approval, I conclude that impacts related to produced water treatment will not be significant from the selected alternative.

Wildlife Resources

The only Threatened or Endangered species or habitat in the project area is the Bald Eagle. The nearest federal mineral activity that will occur is about 1/2 mile from an active Bald Eagle nest (EA Section 3.10.1). All constructed power lines will be buried, as included in the Coal Creek POD, and will reduce the potential for electrocution of eagles and other raptors. In addition, I have included a condition of approval to require the operator to monitor raptor nest productivity (including bald eagle) and bald eagle winter roosts. The mitigating measures required to protect bald eagles are in the Biological Opinion for this project provided by the U.S. Fish and Wildlife Service, and are required to be implemented as a condition of approval (Biological Opinion, November 26, 2003). Therefore, the impacts to T&E listed species will not be significant.

There are no known grouse leks within the project area boundary and only marginal habitat for sage grouse, therefore, impacts to sage grouse will not be significant.

The area is not considered “critical” big game winter range habitat, therefore, timing restrictions and impacts to big game species will not be significant.

For other wildlife species, the avoidance measures in Powder River Gas POD and wildlife monitoring and protection plan will protect wildlife resources (EA Section 4.3.10).

As a result of the above wildlife protective measures and conditions of approval, I conclude that impacts to area wildlife from approval of Powder River Gas POD will not be significant.

Air Quality

The air quality impact analysis (EA Section 4.3.1) did not identify any pollutant concentrations that will be in violation of the applicable air quality standards from the Powder River Gas POD. Due to the nature of the Coal Creek project, no compressor engines would be required. The MDEQ Air Resources Management Division has determined a State air quality permit is not required for the current project.

Specific analysis was completed for the EA to analyze the temporary pollutant emissions generated from CBNG drilling and testing operations. Therefore, it is concluded that impacts to air quality will not be significant.

Cultural Resources

Cultural resource surveys did not identify any historic properties on federal minerals that will be impacted by the Coal Creek POD (EA Section 4.3.2). The SHPO concurred with BLM's determination that no historic properties will be adversely affected by the BLM approval of the Coal Creek POD (EA Section 1.5).

In regards to cultural resources that are important to Native Americans, the BLM directed contractors conducting the inventory of the POD area to pay particular attention to traditional cultural concerns such as springs, homesteads, and plant communities. These features had been previously identified as important to Native Americans during consultation on the MT EIS. The inventory results for the POD did not identify any Traditional Cultural Properties (TCP's) in the project area. The inventory results were provided to the Northern Cheyenne Tribe along with a field inspection and invitation to comment on the survey results. Comments were provided by the Tribe suggesting the presence of a qualified Tribal Cultural Resource Monitor during construction activities. Thus, as a condition of approval, I have required the operator to provide notification and opportunity for the Northern Cheyenne Tribe to provide a qualified Tribal Cultural Resource Monitor to monitor construction activity in order to identify cultural resources that may be unearthed during construction. If a tribal member is unavailable, the operator shall use their consulting archaeologist or an archaeologist holding a valid BLM Cultural Resources Permit.

Based on the above inventory results and conditions of approval, I conclude that impacts to cultural resources will not be significant from the selected alternative.

Social and Economic Conditions/Environmental Justice

Approval of the Powder River Gas POD will not create a significant burden on area services, infrastructure or substantially change the level of employment (EA Section 4.3.7). The EA did not identify any disproportionate impacts on low income or minority communities and there are no environmental justice issues that will be created by approval of the Powder River Gas POD.

Based on the above results, I conclude that impacts to the Social and Economic Conditions/Environmental Justice will not be significant from the selected alternative.

Cumulative Effects

The 16 combined private and federal wells in the project are considerably fewer than the 26,000 wells that were predicted in the MT EIS over the next 20 years. The activity is well within the scope of that analyzed in the 2003 MT EIS and supplemental analysis is not necessary.

The analysis in the attached EA did not identify any significant effects that will result from approval of the Powder River Gas POD in combination with the cumulative actions listed in EA Section 2.3.

COMPLIANCE AND MONITORING

The BLM and Powder River Gas, LLC will provide qualified representatives on the ground during and following construction to validate construction, reclamation, and other approved compliance checks commensurate with the provisions of this Decision Record. The MT EIS (pages MON-7 and MON-8)

describes the type of actions that will occur under BLM's inspection and enforcement program to ensure that Coal Creek POD development and operations are conducted according to the provisions of Alternative C.

Additional monitoring described in the MT EIS (Monitoring Appendix) concerning surface water quality, regional groundwater and air quality is tied to established programs operated by the U.S. Geological Survey, Montana Bureau of Mines and Geology, Montana Department of Environmental Quality and BLM.

Powder River Gas, LLC has committed to monitoring activity in their proposal; including:

- The total amount of vented or flared methane gas during the testing period
- The amount of produced and treated water during the testing period
- All water quality measures identified per the MDEQ MPDES permit
- Domestic water wells and springs included in the cone of influence to determine if impacts are occurring that require mitigation
- Existing and new disturbed areas for invasions of noxious weeds
- Success of reclamation measures

Alternative C requires Powder River Gas, LLC to undertake additional monitoring efforts; including:

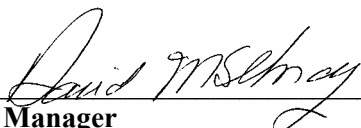
- Designated reference well for water quality characterization of each coal seam developed
- Installation and monitoring of a well to detect leakage and structural integrity of the water treatment holding pond
- Raptor nest productivity (including Bald eagle)
- Bald eagle winter roosts

Appropriate remedial action will be taken by Powder River Gas, LLC in the event unacceptable impacts are identified during the life of the project.

APPEAL PROCESS

You have the right to request a State Director Review (SDR) of this decision and the Conditions of Approval pursuant to 43 CFR 3165.3(b). An SDR request, including all supporting documentation must be filed with the Montana State Office, State Director (MT-920) at P. O. Box 36800, Billings, Montana 59107 within 20 business days of your receipt of this decision.

If adversely affected by the State Director's decision, it can be further appealed to the Interior Board of Land Appeals (IBLA) pursuant to 43 CFR 3165.4, 43 CFR 4.411, and 43 CFR 4.413. Should you fail to timely request an SDR, or after receiving the State Director's decision, fail to timely file an appeal with the IBLA, no further administrative review of this decision will be possible.



Field Manager
Miles City Field Office

11-19-2004
Date

Attachments:

- 1 - Environmental Assessment MT-020-2004-58, Coal Creek Project
- 2 - POD Conditions of Approval to Powder River Gas, LLC - Coal Creek POD

CONDITIONS OF APPROVAL

General

1. The first well drilled to each targeted coal zone will be designated as the POD reference well. Designated reference wells must have the ability to be sampled at the wellhead. Water quality samples must be collected by the operator and submitted for analysis using MDEQ NPDES criteria within 60 days of initial water production. Results of the analysis must be submitted to the MCFO-BLM Authorized Officer as soon as they become available.
2. A pre-construction field meeting must be conducted prior to beginning any construction activities approved under this POD. The operator must contact the BLM Authorized Officer, (406-233-3645) at least 4 days prior to beginning operations so that the meeting can be scheduled. The operator is responsible for having all contractors present (dirt contractors, drilling contractor, pipeline contractor, project oversight personnel, etc.) including the overall field operations superintendent and for providing all contractors copies of the approved POD, project map and BLM Conditions of Approval pertinent to the work that each would be doing.
3. The operator must submit a Sundry Notice (Form 3160-5) to BLM for approval prior to construction of any new surface disturbing activities related to federal leases that are not specifically addressed in the approved APD or POD Surface Use Plan.
4. If any cultural values (sites, artifacts, human remains, etc.) are observed during operation of this lease/permit/right-of-way, they are to be left intact and the Miles City Field Manager notified. The authorized officer will conduct an evaluation of the cultural values to establish appropriate mitigation, salvage or treatment. The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials and contact the authorized BLM officer. Within five working days, the AO will inform the operator as to:
 - Whether the materials appear eligible for the National Register of Historic Places;
 - The mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and,
 - A time-frame for the AO to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction measures.
5. If paleontological resources, either large or conspicuous and/or a significant scientific value are discovered during construction, the find must be reported to the Authorized Officer immediately. Construction must be suspended within 250 feet of said find. An evaluation of the paleontological discovery will be made by a BLM approved professional paleontologist within five working days, weather permitting, to determine the appropriate action(s) to prevent the potential loss of any significant paleontological values. Operations within 250 feet of such a discovery must not be resumed until written authorization to proceed is issued by the Authorized Officer. The applicant

must bear the cost of any required paleontological appraisals, surface collection of fossils, or salvage of any large conspicuous fossils of significant scientific interest discovered during the operation.

6. Prior to the use of pesticides on public land, the holder must obtain from the BLM authorized officer written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers and any other information deemed necessary by the authorized officer to such use. Disturbed areas must be monitored annually for the presence of noxious weeds from June through August. Monitoring must begin prior to disturbance.
7. Powder River Gas, LLC employees and subcontractors will be prohibited from possessing firearms on the project.
8. The operator shall notify BLM (406-232-7001) at least 48 hours before beginning construction activities associated with the sites listed below. BLM shall immediately notify the Northern Cheyenne Tribe about construction activities. The operator shall provide the opportunity to the Northern Cheyenne Tribe for a qualified cultural resources specialist to monitor construction in the locations listed below for the Federal portion of the Powder River Gas Coal Creek Coal Bed Natural Gas Plan of Development (POD) Area. If a Northern Cheyenne Tribal Representative is not available, the company shall use its consulting archaeologist or an archaeologist holding a valid BLM Cultural Resources Permit. The results of monitoring shall be reported in writing by the Tribe or Consulting Archaeologist to BLM within 14 days after completion of monitoring activities.

The purpose of the monitoring is to identify any cultural resources that may be discovered by construction activities. The cultural resources specialist may temporarily halt construction within 300 feet (100 meters) of the find until it can be evaluated by a BLM Cultural Resources Specialist. The operator shall immediately notify BLM (406-232-7001) upon either the discovery of cultural resources or the impact to cultural resources. The BLM authorized officer shall respond to the operator within the five working days as per Condition of Approval No. 5. The same conditions in Conditions of Approval No. 4 and 5 above would apply for buried cultural resources encountered during monitoring.

MONITORING REQUIREMENTS:

Well 11-6: Monitor construction of Well Pad and proposed flowline and underground power to the Tongue River Road.

Well 15-6: Monitor trenching operations for powerline and flowline to Tongue River Road and excavation of reserve pit.

Well 13-6: Monitor excavation of reserve pit and trench for power and flowline to the 3-7 Well.

Well 5-6: Monitor excavation of the reserve pit and any road blading from the proposed gate to the well pad.

Paradox Loop Facility: Monitor construction of facility pad, and pits, and road/infrastructure corridor trench from the Tongue River Road to the facility pad. Monitor the proposed trench for the buried waterline from the facility to the proposed outfall along the Tongue River.

Tongue River Road Corridor: Monitor trenching operations from the where the proposed infrastructure corridor meets the road at the 15-6 road to the proposed corridor for the Paradox Loop Facility.

9. For all Federal wells, the operator shall report the gas produced, water produced and wellhead pressure during the well testing phase. The gas shall be estimated by orifice well tester or measured by orifice meter. The estimated or measured volumes and pressures will be provided to the BLM, Miles City Field Office on a monthly basis (for the Federal wells).
10. Approval of your request for a variance for off- lease measurement is not being granted. If production is established from any of the Federal wells/leases in the POD area and, if the proposed measurement facility for the gas is located off the lease on which the gas is produced, you are required to make application for off lease measurement at that time.
11. The operator is responsible for obtaining all required authorizations and permits.
12. The operator shall monitor specific wildlife species as required:
 - Raptor nest productivity (including bald eagle)
 - Bald eagle winter roosts

Drilling

1. A diverter must be installed to control pressures. (BOP equipment is not required)
2. All wait on cement times must be sufficient for the cement to reach 500 psi compressive strength as required by Onshore Oil & Gas Order No. 2.III.B.
3. A minimum of three centralizers must be installed on the production casing and spaced to afford maximum protection of the shallow coals and aquifers.
4. Reserve pits must be adequately fenced during and after drilling operations until pit is reclaimed to effectively keep out wildlife and livestock. Adequate fencing, in lieu of more stringent requirements by the surface owner, is defined as follows:
 - Construction materials must consist of steel or wood posts. Three or four strand wire (smooth or barbed) fence or hog panel (16-foot length by 50-inch height) or plastic snow fence must be used with connectors such as fence staples, quick-connect clips, hog rings, hose clamps, twisted wire, etc.
 - Construction standards: Posts must be firmly set in ground. If wire is used, it must be taut and evenly spaced, from ground level to top wire, to effectively keep out animals. Hog panels must be tied securely into posts and one another using fence staples, clamps, etc. Plastic snow fencing must be taut and sturdy. Fence must be at least 2 feet from edge of pit, three sides fenced before beginning drilling, the fourth side fenced immediately upon completion of drilling and prior to rig release. Fence must be left up and maintained in adequate condition until pit is closed.
5. The reserve pit must be lined with an impermeable liner if permeable subsurface material is encountered. An impermeable liner is any liner having permeability less than 10^{-7} cm/sec. The liner must be installed so that it will not leak and must be chemically compatible with all substances that may be put in the pit. Liners made of any man-made synthetic material must be of sufficient strength and thickness to withstand normal installation and pit use. In gravelly or rocky soils, a suitable bedding material such as sand must be used prior to installing the liner.

6. The reserve pit must be constructed so that at least half of its total volume is below natural ground level.
7. All waste, other than human waste and drilling fluids, must be contained in a portable trash container and transported to a State approved waste disposal site immediately upon completion of drilling operations. No trash or empty barrels may be placed in the reserve pit or buried on location. All state and local laws and regulations pertaining to disposal of human and solid waste must be complied with.
8. Rat and mouse holes must be filled and compacted from the bottom to the top immediately upon release of the drilling rig from the location. The only fluids/waste materials which are authorized to go into the reserve pit are Resource Conservation and Recovery Act (RCRA) exempt exploration and production wastes. These include:
 - drilling muds & cuttings
 - rigwash
 - excess cement and certain completion & stimulation fluids defined by EPA as exempt

It does not include drilling rig waste, such as:

 - spent hydraulic fluids
 - used engine oil
 - used oil filter
 - empty cement, drilling mud, or other product sacks
 - empty paint, pipe dope, chemical or other product containers
 - excess chemicals or chemical rinsate
9. Any evidence of non-exempt wastes being put into the reserve pit may result in the BLM Authorized Officer requiring specific testing and closure requirements.
10. Any materials classified as nonexempt hazardous wastes must be disposed of in an EPA approved facility.
11. If these wells are drilled during the fire season (June-October), the operator must take all necessary precautions to ensure that fire hazard is minimized, including but not limited to mowing vegetation on the access routes and well sites and keeping fire fighting equipment readily available when drilling.

Access

1. Access roads, including drainage control, must be improved and maintained as necessary or as directed by the BLM Authorized Officer to prevent soil erosion and to provide for safe and environmentally-sound access.
2. Vehicle travel on unimproved two-track roads is prohibited during periods of inclement weather or spring thaw when the possibility exists for excessive surface resource damage such as creating ruts in excess of 4 inches or causing vehicles to travel outside two-track roadway.
3. Culverts must be placed on channel bottoms on firm, uniform beds, which have been shaped to accept them and aligned parallel to the channel to minimize erosion. Backfill material must be thoroughly compacted. All culverts must be appropriately sized in accordance with standards in BLM Manual 9113.
4. Construction and other project-related traffic are restricted to approved routes. Cross-country vehicle travel is not allowed.

5. Maximum design speed on all operator constructed and maintained roads must not exceed 25 miles per hour.
6. Water or other non-saline dust suppressants with at least 50 percent control efficiency must be applied during well site, battery site and road construction. Dust inhibitors (surfacing materials, non-saline dust suppressants and water) must be used as necessary on unpaved roads that present a fugitive dust problem. The use of chemical dust suppressants on public surface will require prior approval from the BLM Authorized Officer.
7. The operator must establish, post and enforce speed limits to achieve at least a 65% reduction of fugitive dust emissions from an assumed base speed equal to 40 miles per hour. The operator must administer dust control measures on active access roads, well sites and battery sites.

Well Sites

1. Equipment must not be stored on the topsoil stockpiles.
2. A minimum 20-foot undisturbed vegetative border must be maintained between toe-of-fill of pad and/or pit areas and the edge of adjacent drainages, unless otherwise directed by the BLM Authorized Officer.

Flowlines

1. Pipeline trenches must be compacted during backfilling and must be routinely inspected and maintained to ensure proper stabilization and reclamation.
2. Pipeline construction must not block nor change the natural course of any drainage. Pipelines must cross perpendicular to drainages. Pipelines must not be run parallel in drainage bottoms.

Treatment Facility

1. The operator shall not discharge any produced water from Federal wells, into the treatment facility holding pond, unless an effective MBOGC Permit to Construct or Operate an Earthen Pit or Pond is in place.
2. The operator must obtain all required permits for the treatment facility waste transport and disposal before any water production from Federal wells can occur.
3. If any sediments form in the treatment facility pond they will be: a) sampled and tested for toxic characteristics, and b) removed by scarifying the liner and disposing of them as indicated by the results of the toxic characterization tests.

Produced Water

1. The Operator must install 1 monitoring well within 50 feet of the treatment facility impoundment. This well will be located underneath and down gradient of the impoundment. The well will be instrumented with a piezometer to detect the presence of water under the impoundment to monitor the effectiveness of the polyethylene lining. This impoundment has an impermeable 20 mil medium density polyethylene liner, therefore, deeper monitoring is not needed. It is not anticipated that this well will contain any water initially. This well will be gauged monthly and reported to the BLM authorized officer monthly unless water levels change by 1 foot or more, or if water is detected in a previously dry well. Also, water sampling will occur quarterly; and samples will be analyzed for major ions (Ca, Mg, Na, K, SO₄, Cl, and HCO₃). If changes are observed, the BLM authorized

officer must be notified within 5 business days and a cause analysis conducted. If adverse monitoring results are recorded, discharge into the impoundment may need to be stopped, the water removed and repairs conducted, prior to the reintroduction of produced water to the impoundment. Monitoring of the well will continue for the life of the impoundment and/or groundwater quality returns to background levels.

2. The operator shall not discharge any produced water from Federal wells into the Tongue River, until the MDEQ MPDES Permit has become "Effective".

Reclamation

1. Reclamation plans must be submitted to BLM for approval via a Notice of Intent (NOI) Sundry Notice before abandoning individual federal POD facilities. Any deviation from the Surface Reclamation Plan included in the Powder River Gas - Coal Creek POD must be included at this time. Individual facilities include well locations, pipelines/utility corridors, and access roads.
2. The operator shall submit an interim or final reclamation plan, including a facility management plan, to the Authorized Officer, within 30 days following the conclusion of testing operations. The reclamation plan must include all surface owner requirements regarding reclamation.
3. Pit reclamation:
 - a. All pit(s) must be emptied of all fluids within 90 days after completion of drilling operations. The pit must be closed properly to assure protection of soil, water and vegetation.
 - b. The pit may not be cut or trenched.
 - c. Pit mud/sludge material may be buried onsite after the material has dried.
 - d. The pit material must be covered with a minimum of 3' of soil
4. The reclamation effort will be evaluated as successful if the previously disturbed area is stabilized, all potential water erosion is effectively controlled and the vegetative stand is established with at least a 70% cover when compared to similar adjacent undisturbed areas.
5. The fluids and mud must be dry in the reserve pit before backfilling and recontouring the pit area. The operator must remediate any subsidence areas that develop from closing a pit. The plastic pit liner (if any) must be cut off below grade and properly disposed of at a state authorized landfill before beginning to recontour the site.
6. Areas of surface disturbance must be ripped or scarified to a depth of at least 12 inches before recontouring and redistributing topsoil. The rippers must not be set more than 24 inches apart.
7. Reclamation of the drill sites must be in accordance with agreements between PRG and the landowners. The disturbed areas must be disked and seeded with a weed-seed free mix approved by the Natural Resource Conservation Service and the surface owner. At a minimum, 12 pounds per acre of seed would be planted, with the initial reseeding in the fall of 2005.
8. Topsoil must be distributed evenly over the entire recontoured area. Prepare the seedbed by disking to a depth of 4-to-6 inches following the contour. Seed must be drilled on the contour to a depth of one-half inch, followed by cultivation to compact the seedbed, preventing soil and seed losses
9. Any mulch used for reclamation must to be certified weed seed free and crimped into the soil.

10. Slopes too steep for machinery may be seeded by hand broadcast with twice the amount of specified seed and raked.
11. Complete fall seeding after September 15 and prior to prolonged ground frost. To be effective, complete spring seeding after the frost has left the ground and prior to May 15.
12. Waterbars must be constructed at least one (1) foot deep, on the contour with approximately two (2) feet of drop per 100 feet of waterbar to ensure drainage and extended into established vegetation. All waterbars are to be constructed with the berm on the downhill side to prevent the soft material from silting in the trench. The initial waterbar should be constructed at the top of the backslope. Subsequent waterbars should follow the following general spacing guidelines:

Slope (percent)	Spacing Interval (feet)
< 2	200
2 – 4	100
4 – 5	75
> 5	50

13. BLM will not release the bond until all disturbed areas associated with the APD/POD have been successfully revegetated (evaluation will be made after the second complete growing season) and has met all other reclamation goals of the surface owner and surface management agency.
14. For bond release approval, a Final Abandonment Notice (with a surface owner release letter on split-estate) must be submitted prior to a final abandonment evaluation by BLM.
15. Soil fertility testing and the addition of soil amendments may be required to stabilize some disturbed lands.
16. The abandonment marker must exhibit the same information required for the well sign. The abandonment marker must be installed when the wells are plugged and consist of a steel plate welded to surface casing 4 feet below ground level.

OTHER APPLICABLE REQUIREMENTS

This is not a complete list of requirements, but is an abstract of some major requirements.

1. General Requirements

- a. The lessee or designated operator shall comply with applicable laws and regulations; with the lease terms, Onshore Oil and Gas Orders; NTL's; and with other orders and instructions of the authorized officer. Any deviation from the terms of the approved APD require prior approval from BLM (43 CFR 3162.1(a)).
- b. If at any time the facilities located on public lands authorized by the terms of the lease are no longer included in the lease due to a lease or unit boundary change, the BLM will process a change in authorization to the appropriate statute. The authorization will be subject to appropriate rental, or other financial obligation determined by the authorized officer.

2. Drilling Operations (Onshore Order No. 2)

- a. All applicable safety precautions outlined in Onshore Order No. 2 shall be observed.

3. Well Abandonment (43 CFR 3162.3-4, Onshore Order No. 1 - Sec. V)

Approval for abandonment shall be obtained prior to beginning plugging operations. Initial approval for plugging operations may be verbal, but shall be followed-up in writing within 30 days. Subsequent and final abandonment notifications are required and shall be submitted on Sundry Notice (Form 3160-5), in triplicate.

4. Reports and Notifications (43 CFR 3162.4-1, 3162.4-3)

- a. Within 30 days of completion of the well as a dry hole or producer, a copy of all logs, core descriptions, core analyses, well-test data, geologic summaries, sample descriptions or data obtained and compiled during the drilling, workover, and/or completion operations shall be filed with a Completion Report (Form 3160-4), in duplicate.
- b. In accordance with 43 CFR 3162.4-3, this well shall be reported on the Oil and Gas Operations Report (OGOR, MMS-4054), starting with the month in which drilling operations commence, and continuing each month until the well is physically plugged and abandoned.
- c. Notify this office within 5 business days of production start-up if either of the following two conditions occur:
 - (1) The well is placed on production.
 - (2) The well resumes production after being off of production for more than 90 days."Placed on production" means shipment or sales of hydrocarbons from temporary tanks, production into permanent facilities or measurement through permanent facilities.

Notification may be written or verbal with written follow-up within 15 days, and must include the following information:

1. Operator name, address, and telephone number.
2. Well name and number, county and state.

3. Well location, "¼", Section, Township, Range, P.M."
 4. Date well begins or resumes production.
 5. The nature of the well's production; that is crude oil, or crude oil casing gas, or natural gas and entrained liquid hydrocarbons.
 6. The Federal or Indian lease number.
 7. As appropriate, the Unit Agreement name, number and Participating Area name.
 8. As appropriate, the Communitization Agreement number.
5. Verbal Notifications
- Made to the BLM, MCDO 406-232-7001, or after business hours to the appropriate individual's home phone shown on the list attached.
- A. Notify this office verbally at least 48 hours prior to beginning construction.
 - B. Notify this office verbally at least 12 hours prior to spudding the well. (To be followed up in writing within 5 days.)
 - C. Notify this office verbally at least 12 hours prior to running any casing or conducting any BOP tests. (To be followed up in writing within 5 days.)
 - D. Notify this office verbally at least 6 hours prior to commencing any DST test.
 - E. Notify this office verbally at least 24 hours prior to plugging the well to receive verbal plugging orders. (Refer to Informational Notice Item No. 3 for additional abandonment instructions.)
 - F. Notify this office verbally at least 24 hours prior to removal of fluids from the reserve pit.
6. Environmental Obligations and Disposition of Production (43 CFR 3162.5-1, 3162.7-1 and 40 CFR 302-4)
- a. With BLM approval, water produced from newly completed wells may be temporarily stored in reserve pits up to 90 days. During this initial period, application for the permanent disposal method shall be made to this office in accordance with Onshore Order No. 7. If underground injection is proposed, an EPA or State permit shall also be obtained. If surface discharge of produced water is proposed, an MPDES permit shall also be required.
 - b. Spills, accidents, fires, injuries, blowout and other undesirable events shall be reported to this office within the timeframes in NTL-3A.
 - c. You are required to take all necessary steps to prevent any death of a migratory bird in pits or open vessels associated with the drilling, testing, completion, or production of this well. The death of any migratory bird found in such a pit or open vessel is a violation of the Migratory Bird Treaty Act and is considered a criminal act. Any deaths of migratory birds attributable to pits or open vessels associated with drilling, testing, completing or production operations must be reported to this office and the United States Fish and Wildlife Service within 24 hours.

We may require that the pit be designed or the open vessel be covered to deter the entry of birds in any facility associated with drilling, testing, completion or production of this well. Fencing, screening and netting of pits may be required as a means to deter bird entry. These conditions would most likely be imposed to prevent the entry of migratory birds if oil is left in pits or open vessels after the cessation of drilling or completion of operations, if water disposal pits consistently

receive oil, or if pits or open vessels are used repeatedly for emergency situations which result in the accumulation of oil.

Voluntary pit fencing, screening and netting, or sealing vessels, is encouraged to avoid potential instances that may result in the death of a migratory bird.

7. Well Identification (43 CFR 3162.6)

Each drilling, producing or abandoned well shall be identified with the operator's name, the lease serial number, the well number, and the surveyed description of the well (either footages or the quarter-quarter section, the section, township and range). The Indian lessor's name may also be required. All markings shall be legible, and in a conspicuous place.

8. A complete copy of the approved Application for Permit to Drill (APD), including conditions, stipulations, and the H2S contingency plan (if required) shall be available for reference at the well site during the construction and drilling phases.
9. This drilling permit is valid for either one year from the approval date or until lease expiration, whichever occurs first.

10. Public Availability of Information (43 CFR 3100.4)

All submitted information not marked "CONFIDENTIAL INFORMATION" will be available for public inspection upon request.

If you have any questions, please contact a member of our staff at 406-232-7001, or at home, after business hours as shown on the following list.

BUSINESS HOURS: 7:45 A.M. to 4:30 P.M. (Mountain Time)

<u>Title</u>	<u>Name</u>	<u>Home Phone</u>
Petroleum Engineer	Chuck Laakso Cell	(406) 232-3598 (406) 853-2904
Petroleum Engineer	Bob McVey	(406) 234-8942
CBM Program Manager	David Breisch	(406) 234-0605
Natural Resource Specialist	Shane Findlay	(406) 234-2282
Petroleum Engineering Technician	Chris DeVault Cell	(406) 234-0784 (406) 853-3643
Petroleum Engineering Technician	Dennis Hutchings	(406) 234-5460
Petroleum Engineering Technician	Irene Harris	(406) 234-4556